

STATUS OF CLAIMS

Claims 1 - 12 are pending.

Claims 1 – 8, 10 and 12 stand rejected.

Claims 9 - 11 stand objected to.

Claims 1 - 6, 8, 9 and 10 have been amended without prejudice.

New Claims 13 - 16 have been added.

REMARKS

Applicant respectfully requests reconsideration of the subject application.

Applicant acknowledges Claims 9 - 11 stand objected to, but would be allowable if re-written in independent form and including all of the limitations of the base claim, and any intervening claims, upon which they rely. Applicant has amended the Claims herein to more clearly recite that which Applicant regards as his invention.

Claims 1 and 4 stand rejected under 35 U.S.C. §102(b) as being anticipated by Bock (United States Patent 4,966,034). Claim 5 stands rejected under 35 U.S.C. §103(a) as being unpatentable over Bock. Claims 2, 3, 6 – 8 and 12 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Bock in view of Mireles (United States Patent 6,640,644). Applicant respectfully requests reconsideration and removal of these rejections for at least the following reasons.

"A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." See, M.P.E.P. §2131 citing Verdegaal Bros. v. Union Oil Co. of California, 814 F.2d 628, 631,

2 USPQ2d 1051, 1053 (Fed. Cir. 1987). Applicant respectfully submits Bock fails to anticipate Claim 1 – as Bock fails to teach each of the limitations of Claim 1.

Amended Claim 1 recites:

In a pressure monitoring system of the type employing a pressure sensitive bridge for activating an indicator by activating a switch when the monitored pressure exceeds a predetermined value indicative of a dangerous condition, in combination therewith, a shunt calibration apparatus for enabling a user to test said switch and indicator prior to the application of said monitored pressure, said shunt calibration apparatus comprising: an impedance having one terminal connected to an output terminal of said bridge, and switching means coupled to another terminal of said impedance to selectively shunt said bridge to provide an output indicative of said dangerous condition when said switching means is operated in a first state and to effectively isolate said impedance from said bridge when said switching means is operated in a second state.

Such a system may be seen in the example of Fig. 3 in the present application. This figure illustrates a circuit that utilizes an electronic switch, and that allows one to determine that the switch is operating and that a critical pressure can be detected.

The circuit of Fig. 3 includes a piezoresistive Wheatstone bridge 30 that receives a pressure from a pressure source. Bridge 30 outputs are coupled to an electronic circuit 31, which selectively activates a transistor 32 by applying a signal at a gate electrode. The transistor 32 illuminates light 34 if the output of the bridge 30 indicates that the monitored pressure has exceeded a threshold voltage.

The exemplary circuit further includes a shunt resistor 36 having one terminal connected to the piezoresistive bridge 30 and the other terminal directed toward reference potential through a shunt calibration switch 33. During normal operation, resistor 36 does not interfere with the operation of the bridge 30. However, when switch

33 is closed, resistor 36 is connected in parallel with one of the arms of the bridge 30. This produces an imbalance of the bridge 30. In the illustrated case, the value of resistor 36 is chosen such that the imbalance causes a bridge 30 output voltage indicative of an alarm condition.

The Bock reference fails to teach the limitations of amended Claim 1. For example, Bock fails to teach the recited switching means for selectively shunting a bridge to provide an output indicative of the dangerous condition of Claim 1.

The Office action argues Bock teaches a bridge 1 and switching means 7. See, *3/24/2005 Office action, par. 2*. The Office action further argues the switching means 7 enables the impedance to selectively shunt the bridge 1 to force the bridge to provide an output indicative of a dangerous condition when operated in a first state and isolate the impedance in a second state. See, *3/24/2005 Office action, par. 2*. Applicant traverses these assertions.

A detailed reading of Bock reveals this reference discloses a bridge transducer 1 positioned in a vehicle wheel and a vehicle ignition switch 7. See, e.g., *Fig. 2A*; see also, *col. 4, lines 61-68*. When the vehicle ignition switch 7 is open, the circuitry is not operational. When the ignition switch 7 is closed, transducer 1 is energized via tuned circuit 10 and power rectifier 11. See, e.g., *Fig. 1A*; see also, *col. 4, line 61 – col. 5, line 18*. Accordingly, in a first position the ignition switch merely impedes operation of the bridge 1, and in a second position merely powers bridge 1 via tuned circuit 10 and rectifier 11.

Thus, the ignition switch 7 of Bock neither: (1) shunts any bridge to provide an output indicative of a dangerous condition when operated in a first state; nor (2) isolates

an impedance from the bridge when operated in a second state. In contrast, present claim 1 in part *“switching means coupled to another terminal of said impedance to selectively shunt said bridge to provide an output indicative of said dangerous condition when said switching means is operated in a first state and to effectively isolate said impedance from said bridge when said switching means is operated in a second state.”*

Accordingly, as Bock fails to teach each of the recited limitations of Claim 1, the Block reference fails to anticipate present Claim 1 under 35USC102; reconsideration and withdrawal of this rejection is requested. Applicant also respectfully requests reconsideration and removal of the rejections of Claims 2 – 5 as well, at least by virtue of these claims' ultimate dependence from patentably distinct base Claim 1.

With regard to Claims 6 – 8 and 12, to establish a prima facie case of obviousness, all of the recited claim limitations must be taught or suggested in the prior art. *See, MPEP 2143.03; see also, In re. Royka, 490 F.2d 981, 180 USPQ 580 (CCPA 1974).* Applicant submits the cited art fails to teach, or suggest, each of the recited limitations of any of Claims 6 – 8 and 12, and hence, as a matter of law, fails to render any of these claims unpatentable.

For example, Claim 6 recites, in part,

a selectively operated switch having one terminal coupled to said second terminal of said impedance with said other terminal coupled to a reference potential, said switch being operative in a first position to cause said impedance to shunt said bridge to cause said bridge to provide a voltage indicative of said improper pressure during the absence of an applied pressure to said bridge and operative in a second position to isolate said impedance from said bridge whereby a user can determine whether said switching means and indicator will be operative upon application of the applied pressure.

Again, Bock fails to teach, or suggest a switch being: (1) operative in a first position to cause an impedance to shunt said bridge to cause the bridge to provide a voltage indicative of an improper pressure during the absence of an applied pressure to said bridge, and (2) operative in a second position to isolate the impedance from the bridge. Applicant submits Mireles fails to remedy these defects of Bock.

In fact, Applicant submits Mireles as applied in the Office action fails to add anything to Bock in these regards – as Mireles is relied upon merely for its alleged teachings of a Wheatstone bridge. For example, Fig. 3 of Mireles merely illustrates a schematic diagram of a Wheatstone bridge. And, column 6, lines 1-7 and 32-43 merely discuss the general operation and fabrication of a Wheatstone bridge.

Accordingly, Applicant respectfully requests reconsideration and removal of the rejection of Claim 6. Applicant also respectfully requests reconsideration and removal of the rejections of Claims 7 – 8 and 12 as well, at least by virtue of these claims' ultimate dependency upon a patentably distinct base Claim 6.

New Claims 13-16 have been added herein to further define what Applicant considers as the present invention. Support for the newly added claims may be found throughout the specification and drawings, including for example paragraphs [0020]-[0023] and Figure 3. Newly added independent Claim 13 recites in relevant part, “a switch for selectively shunting an electrical impedance into said bridge; wherein, said impedance is of a magnitude to cause said bridge output to be indicative of the sensed condition satisfying the threshold condition, regardless of said sensed condition, when shunted into said bridge by said switch.” The cited prior art of record fails to teach or

suggest, either singly or in combination, each of the limitations recited in present Claim 13. Applicant also submits new Claims 14 – 15 are patentably distinguishable over the prior art of record as well, at least by virtue of these claims' ultimate dependence from patentably distinct base Claim 13.

With regard to newly added independent Claim 16, it also analogously recites, in part, "a switch for selectively shunting an impedance into said resistive network to bias said voltage indicative of the applied pressure to cause said control circuit to provide said indication regardless of whether said applied pressure exceeds said predetermined value." Accordingly, Applicant respectfully submits new Claim 16 also patentably distinguishes over the prior art of record for at least the foregoing reasons.

CONCLUSION

Applicant believes he has addressed all outstanding grounds raised by the Examiner and respectfully submits the present case is in condition for allowance, early notification of which is earnestly solicited.

Should there be any questions or outstanding matters, the Examiner is cordially invited and requested to contact Applicant's undersigned attorney at his number listed below.

Respectfully submitted,



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